



FACT SHEET

What You Should Know About a Smallpox Outbreak

The thought of a smallpox outbreak is scary, but public health officials are preparing to respond quickly and effectively to such an event. The public can prepare too, by being informed. This fact sheet was created to provide members of the public with basic information about the possible use of smallpox as a biological weapon and what to do if that happens. If a smallpox emergency occurs, more detailed information and instructions will be available on the Centers for Disease Control and Prevention (CDC) web site and through other channels such as radio and television.

Why Smallpox is a Concern

Because smallpox was wiped out many years ago, a case of smallpox today would be the result of an intentional act. A single confirmed case of smallpox would be considered an emergency.

Thanks to the success of vaccination, the last natural outbreak of smallpox in the U.S. occurred in 1949. By 1972, routine smallpox vaccinations for children in the U.S. were no longer needed. In 1980, smallpox was said to be wiped out worldwide, and no cases of naturally occurring smallpox have happened since.

Today, the smallpox virus is kept in two approved labs in the U.S. and Russia. However, credible concern exists that the virus was made into a weapon by some countries and that terrorists may have obtained it. Smallpox is a serious, even deadly, disease. CDC calls it a "Category A" agent. Category A agents are believed to present the greatest potential threat for harming public health.

Possible Ways of Getting Smallpox

Possible ways to become infected with smallpox include:

- **Prolonged face-to-face contact with someone who has smallpox** (usually someone who already has a smallpox rash). This was how most people became infected with smallpox in the past. However, a person can be exposed to someone who has smallpox and not become infected.
- **Direct contact with infected bodily fluids or an object such as bedding or clothing** that has the virus on it.
- **Exposure to an aerosol release of smallpox (the virus is put in the air).** On rare occasions in the past, smallpox was spread by virus carried in the air in enclosed places such as buildings, buses, and trains. The smallpox virus is not strong and is killed by sunlight and heat. In lab experiments, 90% of aerosolized smallpox virus dies within 24 hours; in the presence of sunlight, this percentage would be even greater.

Smallpox is not known to be spread by insects or animals.

Signs and Symptoms

- For the first 7 to 17 days after exposure, the infected person feels fine and is not contagious (cannot spread the disease).
- After 7-17 days, the first symptoms of smallpox appear. These include fever, tiredness, head and body aches, and sometimes vomiting. The fever is usually high, in the range of 101 to 104

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degrees Fahrenheit. At this time, people are usually too sick to carry on their normal activities. This stage may last for 2 to 4 days.

- Next, a rash appears first as small red spots on the tongue and in the mouth. A rash then appears on the skin, starting on the face and spreading to the arms and legs and then to the hands and feet. Usually the rash spreads to all parts of the body within 24 hours.
- The rash becomes raised bumps and the bumps become "pustules", which are raised, usually round and firm to the touch as if there's a small round object under the skin.
- The pustules begin to form a crust and then scab. By the end of the second week after the rash appears, most of the sores have scabbed over.
- The scabs begin to fall off, leaving scars. Most scabs will have fallen off three weeks after the rash first appears.

A person with smallpox is sometimes contagious when they get a fever, but the person becomes most contagious when they get a rash. The infected person is contagious until their last scab falls off. In the past, most people recovered from smallpox, but three out of every ten smallpox patients died.

Treatment and Prevention

There is no proven treatment for smallpox. Scientists are currently researching new treatments. Patients with smallpox may be helped by intravenous fluids, medicine to control fever or pain, and antibiotics for any secondary bacterial infections that may occur.

One of the best ways to prevent smallpox is through vaccination. If given to a person before exposure to smallpox, the vaccine can completely protect them. Vaccination within 3 days after exposure will prevent or greatly lessen the severity of smallpox in most people. Vaccination 4 to 7 days after exposure likely offers some protection from disease or may decrease the severity of disease. Vaccination will not protect smallpox patients who already have a rash.

Currently, the smallpox vaccine is not widely available to the general public. However, there is enough smallpox vaccine to vaccinate everyone who would need it in an emergency.

How Public Health Officials will Respond to a Smallpox Outbreak

CDC has a detailed plan to protect Americans against the use of smallpox as a biological weapon. This plan includes the creation and use of special teams of health care and public health workers. If a smallpox case is found, these teams will take steps immediately to control the spread of the disease. Smallpox was wiped out through specific public health actions, including vaccination, and these actions will be used again.

- If a smallpox outbreak happens, public health officials will use television, radio, newspapers, the Internet and other channels to inform members of the public about what to do to protect themselves and their families.
- Officials will tell people where to go for care if they think they have smallpox.
- Smallpox patients will be isolated (kept away from other people who could get sick from them) and will receive the best medical care possible. Isolation prevents the virus from spreading to others.
- Anyone who has had contact with a smallpox patient will be offered smallpox vaccination as soon as possible. Then, the people who have had contact with those individuals will also be vaccinated. Following vaccination, these people will need to watch for any signs of smallpox. People who have been exposed to smallpox may be asked to take their temperatures regularly and report the results to their health department.

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- The smallpox vaccine may also be offered to those who have not been exposed, but would like to be vaccinated. At local clinics, the risks and benefits of the vaccine will be explained and professionals will be available to answer questions.
- No one will be forced to be vaccinated, even if they have been exposed to smallpox.
- To prevent smallpox from spreading, anyone who has been in contact with a person with smallpox but who decides not to get the vaccine may need to be isolated for at least 18 days. During this time, they will be checked for symptoms of smallpox.
- People placed in isolation will not be able to go to work. Steps will be taken to care for their everyday needs (e.g., food and other needs).

Because smallpox does not spread as easily as measles or flu, measures like vaccination and isolation allowed public health officials to wipe out the disease.

How You Can Protect Yourself and Your Family During an Outbreak

- **Stay informed. Listen to the news to learn how the outbreak is affecting your community.** Public health officials will share important information including areas where smallpox cases have been found and who to call and where to go if you think you have been exposed to smallpox.
- **Follow the instructions of public health authorities.**
- **Stay away from, and keep your children away from, anyone who might have smallpox.** This is especially important if you or your children have not been vaccinated.
- **If you think you have been exposed to smallpox, stay away from others and call your health department or health care provider immediately;** they will tell you where to go.

For more information, visit www.cdc.gov/smallpox, or call the CDC public response hotline at (888) 246-2675 (English), (888) 246-2857 (español), or (866) 874-2646 (TTY)

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